Ministry of the Environment
Ontario

1987 TECHNOLOGY TRANSFER CONFERENCE

ABSTRACTS

NOVEMBER 30 & DECEMBER 1, 1987

ROYAL YORK HOTEL
TORONTO, ONTARIO, CANADA

ABSB

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ADVANCED MASS SPECTROMETRIC TECHNIQUES FOR THE IDENTIFICATION OF UNKNOWN ORGANIC COMPOUNDS. V.Y. Taguchi, E.J. Reiner, D.T. Wang and O. Meresz, Ministry of the Environment, Rexdale, Ontario.

Identification of unknown organic compounds by gas chromatography/mass spectrometry (GC/MS) usually involves comparison of the mass spectrum of the unknown to a reference library of mass spectra of known compounds. This technique of library searching is limited by the number of entries in the library and the capacity of the computer to assimilate and search larger libraries. Mass spectra that cannot be identified through this technique must be interpreted from first principles. Advanced mass spectrometric techniques that can aid in the interpretation include linked scanning, mass analyzed ion kinetic energy spectroscopy (MIKES) and accurate mass (empirical formula) determinations. These techniques will be explained and demonstrated on model compounds. Applications to environmental samples will be presented.